

Work Order ID 128616

Tuesday, February 10, 2015 7:42:44 AM

128616

Page 1

Item ID: D119-675-011 Accept ***N900040100*** Setup Start ***NS1***
 Revision ID: Stop ***NS2***
 Item Name: Heli-Access-Step™ LH
 Start Date: 1/20/2015 Start Qty: 2.00 ***2*** Cust Item ID:
 Required Date: 3/6/2015 Req'd Qty: 2.00 ***2*** Customer:
 Reference:

Approvals: Process Plan: MLJ Date: 15-02-10 Tooling: _____ Date: _____ Run Start ***NR1***
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
DSI9647	A								
100	Document Control	0.00							
100	DOCUMENT CONTROL								
DC	Memo	0.00							
Doc.Control -USB or Paperwork	Photocopy bluefile & type labels per PPP D119-675-011 CHG005								
110	Pick Kit	0.00							
110									
Packaging	Memo	0.00							
Packaging									
120	QC4- 100% Inspect kits for completeness	0.00							
120									
QC	Memo	0.00							
Quality Control									

DAS
06
9-89

DAS
06
9-89

MAR 02 2015

2 MLJ 1502-10
(2)

DAS 27 9-89
 FEB 11 2015
 DAS 46 9-89
 MAR 02 2015

MAR 02 2015

DAS
06
9-89

2

Work Order ID 128616

Tuesday, February 10, 2015 7:42:44 AM

128616

Page 2

Item ID: D119-675-011 Accept ***N900040100*** Setup Start ***NS1***
 Revision ID: Stop ***NS2***
 Item Name: Heli-Access-Step™ LH
 Start Date: 1/20/2015 Start Qty: 2.00 ***2*** Cust Item ID:
 Required Date: 3/6/2015 Req'd Qty: 2.00 ***2*** Customer:
 Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
130	Packaging	0.00					DAS 46		DAS 06 9-89
130	Memo	0.00							
Packaging	Identify and pack for shipping as per PPP D119-675-011								
Packaging	Location: <u>081</u>								
140	QC21- Final Inspection - Work Order Release	0.00							
140	Memo	0.00							
QC									
Quality Control									

MAR 05 2015

MLJ 15-03-09

15-3-6

Picklist Print

Tuesday, February 10, 2015 7:42:47 AM

Page 1

Work Order ID: 128616

128616

Parent Item: D119-675-011

D119-675-011

Parent Item Name: Heli-Access-Step™ LH

Start Date: 1/20/2015

Required Date: 3/6/2015

Start Qty: 2.00

Required Qty: 2.00

Comments: IPP Rev:D Removed Manufacturing JLM 05-11-01
IPP RevE change at rev.b as per ECN1107 DD verified by: IPP REV:F
13.09.03 chg005 / DSI9647 DD VERF:JLM

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	-------------	--------------	---------------	----------------	--------

D2274		Manufactured	No			110	Each	38.0000	8	16			
-------	--	--------------	----	--	--	-----	------	---------	---	----	--	--	--

D2274

Radius Block

Location

Loc Qty

Loc Code

FG	12	
86855	12	
ST012a	26	
121589	24	
124363	2	

**

B128474 SP

DAS
46
9-89

D2617-3

Manufactured No

110 Each

26.0000

4

8

D2617-3

Bushing

Location

Loc Qty

Loc Code

FG	10	
27991	10	
ST008A	16	
107905	16	

**

DAS
27
9-89
FEB 11 2015

DAS
46
9-89

D2617-5

Manufactured No

110 Each

20.0000

4

8

D2617-5

Spacer

Location

Loc Qty

Loc Code

FG	10	
31756	10	
ST008A	10	
125464	10	

**

DAS
27
9-89
FEB 11 2015

DAS
46
9-89

R B107593

4
4

Picklist Print

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Page 2

Work Order ID: 128616

128616

Parent Item: D119-675-011

D119-675-011

Parent Item Name: Heli-Access-Step™ LH

Start Date: 1/20/2015

Required Date: 3/6/2015

Start Qty: 2.00

Required Qty: 2.00

D2732-032

Manufactured No

110 Each

46.0000

16

D2732-032

Rubber Cushion - 32"

DAS
27
9-89

Location

Loc Qty

Loc Code

PKG

46

107346

3

117106

43

B17118

16

DAS
27
9-89

FEB 10 2015

(DAS
46
9-89)

D3041-1

Manufactured No

110 Each

10.0000

4

8

D3041-1

Clamp

DAS
27
9-89

Location

Loc Qty

Loc Code

ST520

10

125802

10

110 Each

10.0000

2

4

DAS
27
9-89

FEB 10 2015

(DAS
46
9-89)

D3041-3

Manufactured No

110 Each

10.0000

2

4

D3041-3

Clamp

DAS
27
9-89

Location

Loc Qty

Loc Code

ST520

10

125823

10

110 Each

8.0000

4

8

DAS
27
9-89

FEB 10 2015

(DAS
46
9-89)

D3041-5

Manufactured No

110 Each

8.0000

4

8

D3041-5

Clamp

DAS
27
9-89

Location

Loc Qty

Loc Code

ST520

8

115538

8

8

FEB 10 2015

(DAS
46
9-89)

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Page 3

Work Order ID: 128616

128616

Parent Item: D119-675-011

D119-675-011

Parent Item Name: Heli-Access-Step™ LH

Start Date: 1/20/2015

Required Date: 3/6/2015

Start Qty: 2.00

Required Qty: 2.00

D3041-7

Manufactured No

110

Each

23.0000

-2 4

D3041-7

Clamp

**

DAS

27

9-89

(DAS)

46

9-89

FEB 10 2015

DAS
27
9-89

Location

Loc Qty

Loc Code

ST515

2

106487

2

ST520

21

115539

1

127367

20

D3043-041

Manufactured No

110

Each

4.0000

1 2

D3043-041

Step Weldment LH

**

DAS

27

9-89

FEB 10 2015

DAS
27
9-89

Location

Loc Qty

Loc Code

PKG

4

128615

4

AN4-15A

Purchased No

110

Each

502.0000

4 8

AN4-15A

Bolt

**

DAS

27

9-89

FEB 10 2015

DAS
27
9-89

Location

Loc Qty

Loc Code

GA

38

120449

38

ST325A

308

m130358

8

m131320

300

ST343

156

m131305

156

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Shop Packet Print

Page 3

Picklist Print

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Page 4

Work Order ID: 128616

128616

Parent Item: D119-675-011

D119-675-011

Parent Item Name: Heli-Access-Step™ LH

Start Date: 1/20/2015

Required Date: 3/6/2015

Start Qty: 2.00

Required Qty: 2.00

AN4-16A

Purchased

No

110

Each

155.0000

16

AN4-16A

Bolt

DAS
27
9-89

**

DAS

27

9-89

DAS
46
9-89

FEB 10 2015

Location

Loc Qty

Loc Code

FG

5

121541

5

ST343

150

M131139

50

M131420

100

NAS1149D0463J

Purchased

No

110

Each

3,825.000

12

24

NAS1149D0463J

WASHER

DAS
27
9-89

**

DAS

27

9-89

DAS
46
9-89

FEB 10 2015

Location

Loc Qty

Loc Code

CA

397

M129682

397

GA

408

M129390

408

ST260a

1151

M129390

1151

ST269

1869

M130799

1869

29

Picklist Print

Tuesday, February 10, 2015 7:42:48 AM

Page 5

Work Order ID: 128616

128616

Parent Item: D119-675-011

D119-675-011

Parent Item Name: Heli-Access-Step™ LH

Start Date: 1/20/2015

Required Date: 3/6/2015

Start Qty: 2.00

Required Qty: 2.00

MS21042L4

Purchased

No

110

Each

3,210.000 ~~12~~ 24

DAS
27
9-89

MS21042L4

Locknut

FEB 10 2015

DAS
66
9-89

Location

Loc Qty

Loc Code

FP001

42

m124231

42

GA

704

m127813

704

ST260a

1931

m130799

731

m131340

1200

ST305

533

426

426

m128300

8

m130922

99

DAS
46
9-89

DART SERVICE INSTRUCTION

TO AMEND INSTALLATION INSTRUCTIONS IIN-D119-675 REV. B AND
INSTRUCTIONS FOR CONTINUED AIRWORTHINESS ICA-D119-675 REV. 2
REF. FAA STC SR00948SE & EASA STC EASA.IM.R.S.01458

1.0 INTRODUCTION:

The purpose of this Service Instruction is to improve installation of D119-675-011/-012 *Heli-Access-Steps*. This improvement consists of replacing the inboard D3042-1 Clamps and D2182B032 Rubber Cushions with D3041-5/-7 Clamps and D2732-032 Rubber Cushions.

For existing installations (D119-675-011/-012 *Heli-Access-Steps* @ Change 004 or earlier), this service instruction also recommends removal of the D2617-5 Bushings at the aft crosstube position to prevent the bearings in the D3041-1/-3 clamps from being pushed out and makes it permissible for operators to raise the step an additional 2.00 inches (51mm) to provide clearance for the ground handling wheels. Refer to section 2.0 of this Service Instruction.

New installations steps (D119-675-011/-012 *Heli-Access-Steps* @ change 005 or later) will have their parts list and instructions amended accordingly. Refer to section 3.0 of this Service Instruction.

2.0 INSTALLATION OF DSI 9647-011 CLAMP REPLACEMENT KIT:

- 2.1 The DSI 9647-011 Clamp Replacement Kit can be procured from Dart. One kit upgrades one step.
- 2.2 Remove and discard the D3042-1 Clamps, D2182B032 Rubber Cushions and hardware. Replace with the D3041-5/-7 Clamps, D2732-032 Rubber Cushions and hardware as shown in Section B-B and C-C of this Service Instruction.
- 2.3 Tighten clamp bolts. Do not exceed torque of 60 in-lb (6.8 nm) on the nuts.
CAUTION: Over-torquing the nuts could lead to structural damage of the clamps.
- 2.4 Amend weight and balance per section 4.0 of this Service Instruction.

15-01-20
NO. 128610 M/S
ATTACH NOTICE
YOUR ORDER
UNCONTROLLED COPY
RETURN TO
ENGINEERING
SHOOT COPY

A	NEW ISSUE	AJS	13.04.04
REV.	DESCRIPTION	BY	DATE
DESIGN	AJS	DART AEROSPACE USA, INC KENT, WA	
DRAWN	AJS		
CHECKED	<i>[Signature]</i>	DRAWING NO.	REV. A
MFG. APPR.	N/A	DSI 9647	SHEET 1 OF 6
APPROVED	<i>[Signature]</i>	TITLE	SCALE
DE APPR.	<i>[Signature]</i>	CLAMP REPLACEMENT	NTS
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3.0 INSTALLATION INSTRUCTIONS:

For D119-675-011/-012 *Heli-Access-Steps* @ CHG 005 or later.

Step installations for the A119/AW119 MKII rotorcraft are illustrated in Figure 1 and View A-A, Sections B-B, and C-C of this Service Instruction.

3.1 Remove the existing crosstube-mounted short steps.

- a) For **A119 model** aircraft, remove the Agusta P/N 109-0570-33-101/-103 step by drilling out the 4 attachment rivets per step. Plug holes with rivets and touch up paint per the Aircraft Maintenance Manual as required.
- b) For **AW119 MKII model** aircraft, remove the Agusta P/N M031-01S002-041 step by removing the MS21920-20/-22 clamps. Touch up paint per the Aircraft Maintenance Manual as required.

NOTE: It is acceptable to leave the short steps on the landing gear provided they do not interfere with the installation of the Dart step in accordance with the dimensions shown in View A-A of Figure 1.

3.2 Install the D3041-1/-3 Clamps on the step as follows.

- a) For **A119 model** aircraft, install the D3041-1/-3 Clamps per Sections B-B and C-C of this Service Instruction.
- b) For **AW119 MKII model** aircraft, install the D3041-1 Clamps per Sections B-B and C-C of this Service Instruction.

3.3 Present the step to the outboard side of the crosstubes. Propping the step at the appropriate height (see Figure 1) can facilitate installation.

3.4 Install the D2732-032 Rubber Cushions under the D3041-1/-3/-5/-7 Clamps (see Sections B-B and C-C (of this DSI)).

3.5 Find the appropriate step height by locating the step/clamp as shown in View A-A. Locate the forward D3041-1/-3 Clamp 7.8"- 10.4" above the crosstube cuff. Locate the aft D3041-1 Clamp 7.8"-11.6" above the crosstube cuff. The distances given are from the crosstube cuff to the bottom-most clamp.

3.6 Tighten the clamp bolts. Do not exceed torque of 60 in-lb (6.8 Nm) on the nuts.

CAUTION: Over-torquing the nuts could lead to structural damage of the clamps.

3.7 Amend weight and balance per section 4.0 of this Service Instruction.

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4.0 WEIGHT AND BALANCE:

Use the following Weight and Balance for D119-675-011/-012 @ CHG 005 or later.

Installation	Weight	LATERAL		LONGITUDINAL	
		Arm	Moment	Arm	Moment
D119-675-011	11.8 lb	-32.4 in	-382 in-lb	121.3 in	1431 in-lb
Heli-Access-Step™, LH	5.4 kg	-1.28 m	-6.9 m-kg	3.08 m	16.6 m-kg
D119-675-012	11.8 lb	+32.4 in	+382 in-lb	121.3 in	1431 in-lb
Heli-Access-Step™, RH	5.4 kg	+1.28 m	+6.9 m-kg	3.08 m	16.6 m-kg

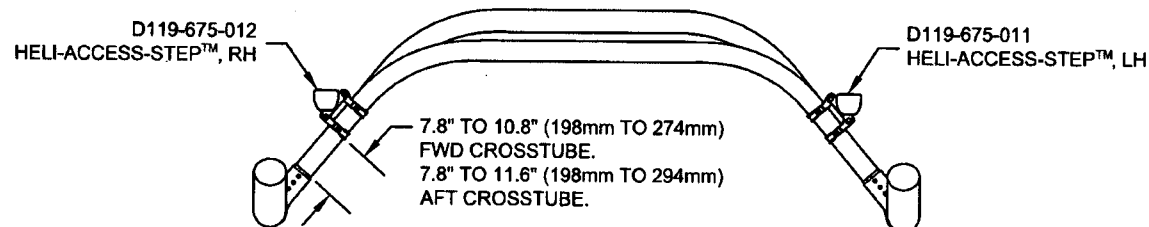
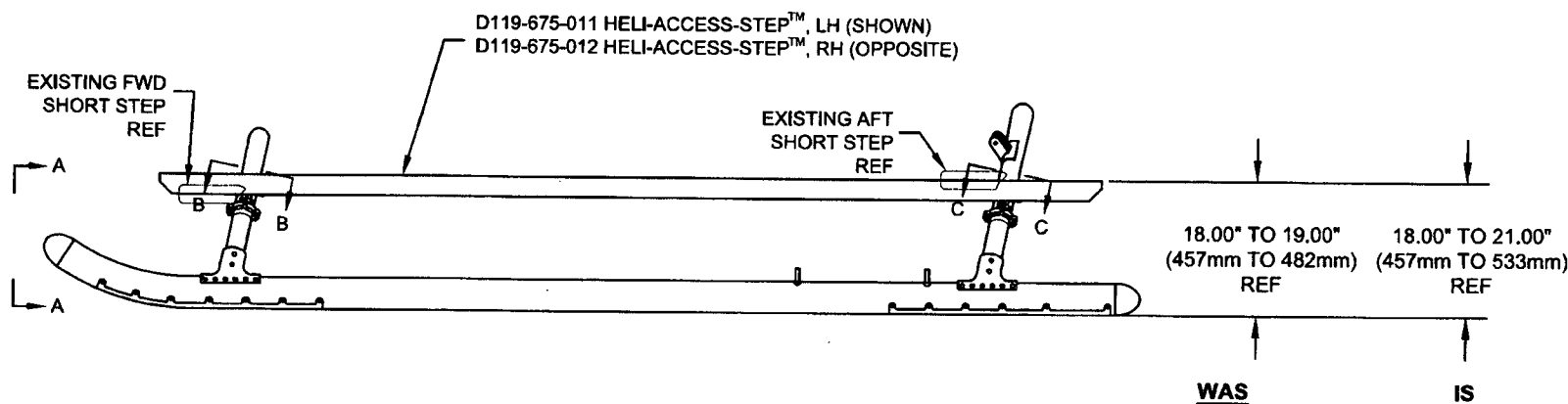
5.0 PARTS LISTS:

QTY -011	Part Number	Description
X	DSI 9647-011	CLAMP REPLACEMENT KIT
4	D2732-032	RUBBER CUSHION
4	D3041-5	CLAMP
2	D3041-7	CLAMP
8	AN4-16A	BOLT
8	AN960JD416	WASHER
8	MS21042L4	BOLT

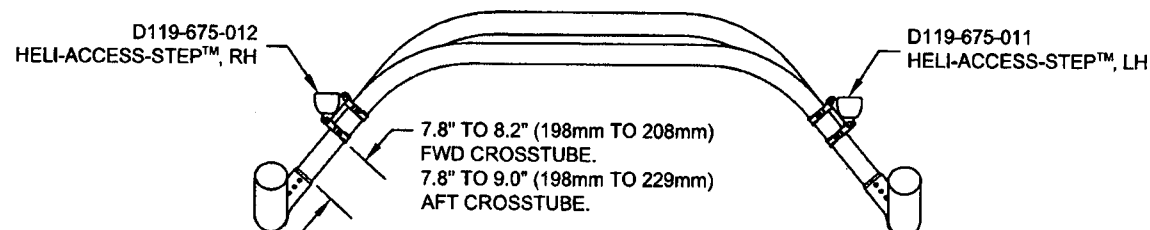
Use the following Parts List for D119-675-011/-012 @ CHG 005 or later.

Qty -011	Qty -012	Part Number	Description
X		D119-675-011	HELI-ACCESS-STEP™, LH
	X	D119-675-012	HELI-ACCESS-STEP™, RH
8	8	D2274	RADIUS BLOCK
4	4	D2617-3	BUSHING
4	4	D2617-5	BUSHING
8	8	D2732-032	RUBBER CUSHION
4	4	D3041-1	CLAMP
2	2	D3041-3	CLAMP
4	4	D3041-5	CLAMP
2	2	D3041-7	CLAMP
1		D3043-041	STEP WELDMENT LH
	1	D3043-042	STEP WELDMENT RH
4	4	AN4-15A	BOLT
8	8	AN4-16A	BOLT
12	12	AN960JD416	WASHER
12	12	MS21042L4	NUT (OR MS21042-4)

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MFG. APPR.	N/A	DSI 9647	SHEET 3 OF 6
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VIEW A-A



VIEW A-A

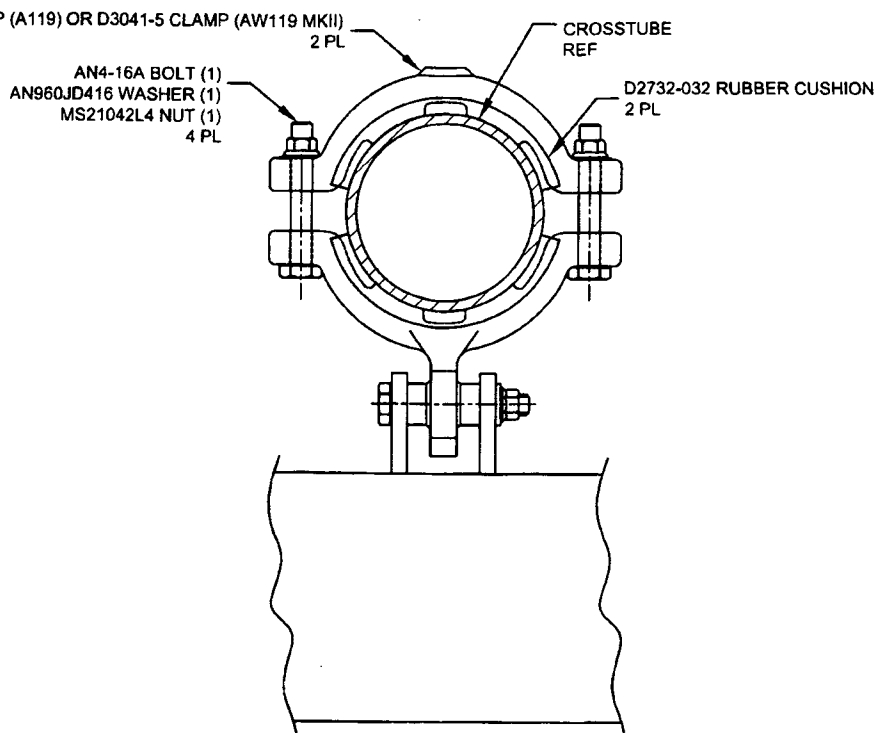
FIGURE 1 - D119-675-011/-012 HELI-ACCESS-STEP™

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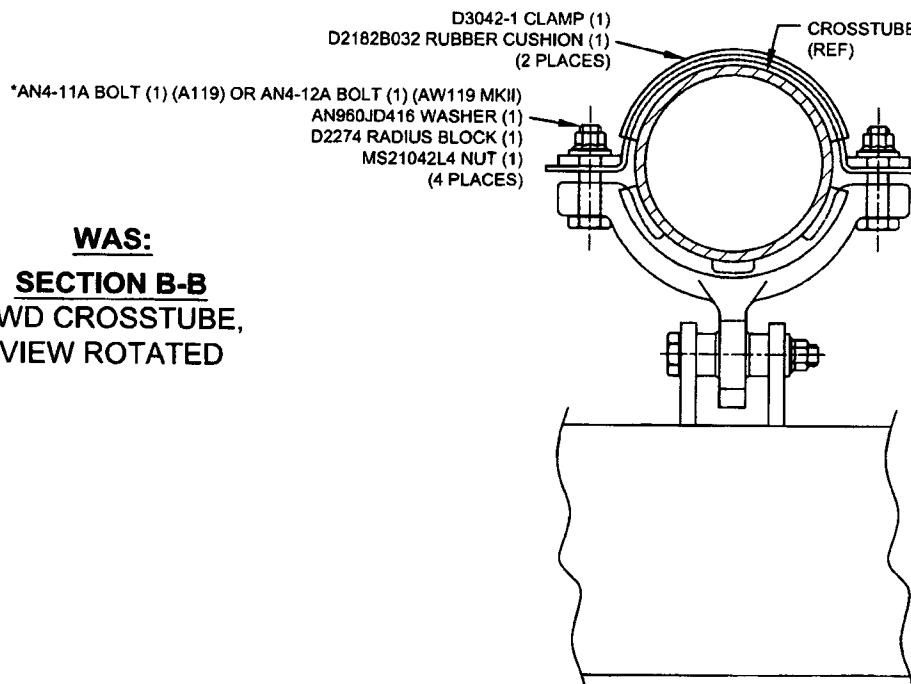
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		SCALE NTS	

IS:
SECTION B-B
 FWD CROSSTUBE,
 VIEW ROTATED

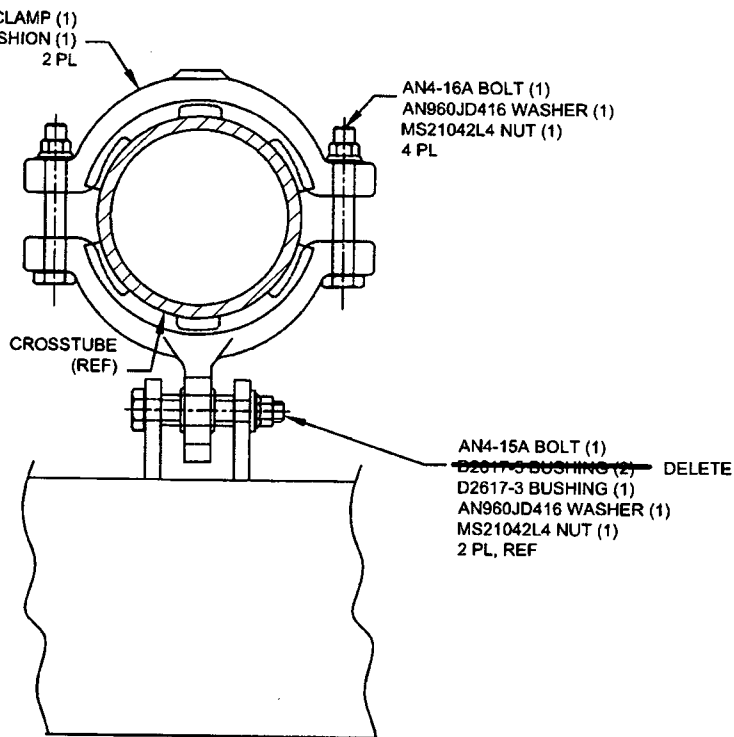


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SECTION B-B
 FWD CROSSTUBE,
 VIEW ROTATED

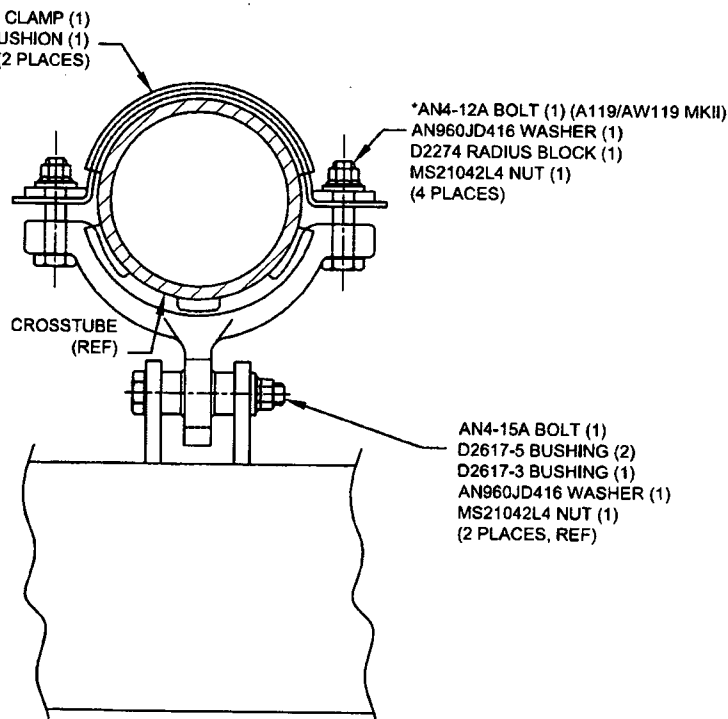


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IS:
SECTION C-C
AFT CROSSTUBE,
VIEW ROTATED



WAS:
SECTION C-C
AFT CROSSTUBE,
VIEW ROTATED



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4.0 WEIGHT AND BALANCE:

Ref

DAS
06
9-00

Use the following Weight and Balance for D119-675-011/-012 @ CHG 005 or later.

Installation	Weight	LATERAL		LONGITUDINAL	
		Arm	Moment	Arm	Moment
D119-675-011	11.8 lb	-32.4 in	-382 in-lb	121.3 in	1431 in-lb
Heli-Access-Step™, LH	5.4 kg	-1.28 m	-6.9 m-kg	3.08 m	16.6 m-kg
D119-675-012	11.8 lb	+32.4 in	+382 in-lb	121.3 in	1431 in-lb
Heli-Access-Step™, RH	5.4 kg	+1.28 m	+6.9 m-kg	3.08 m	16.6 m-kg

5.0 PARTS LISTS:

QTY -011	Part Number	Description
X	DSI 9647-011	CLAMP REPLACEMENT KIT
4	D2732-032	RUBBER CUSHION
4	D3041-5	CLAMP
2	D3041-7	CLAMP
8	AN4-16A	BOLT
8	AN960JD416	WASHER
8	MS21042L4	BOLT

Use the following Parts List for D119-675-011/-012 @ CHG 005 or later.

Qty -011	Qty -012	Part Number	Description
X		D119-675-011	HELI-ACCESS-STEP™, LH
	X	D119-675-012	HELI-ACCESS-STEP™, RH
18	8	D2274	RADIUS BLOCK
4	4	D2617-3	BUSHING
4	4	D2617-5	BUSHING
8	8	D2732-032	RUBBER CUSHION
4	4	D3041-1	CLAMP
2	2	D3041-3	CLAMP
4	4	D3041-5	CLAMP
2	2	D3041-7	CLAMP
1	1	D3043-041	STEP WELDMENT LH
	1	D3043-042	STEP WELDMENT RH
4	4	AN4-15A	BOLT
8	8	AN4-16A	BOLT
12	12	AN960JD416	WASHER
12	12	MS21042L4	NUT (OR MS21042-4)

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